Wind Speed and Direction Measurement Procedures

Purpose: You will record wind speed and direction at least once a day and at intervals during the day. Maintaining an accurate record of the wind speed and direction during the day will allow you to compare wind variations with temperature and with events like snowstorms and the formation of particular snowflake types. Changes in wind speed and direction often precede changes in weather.

Materials: Measurement of wind speed are made using an instrument called and anemometer. Wind direction is determined by a weather vane or windsock. Often a vane is combined with an anemometer. While you can easily determine the wind direction with a variety of simple devices, you will need an anemometer to accurately measure the wind speed. You may be using an anemometer that is part of a complete weather station. Use the directions with the anemometer.

Procedure:

1. All weather data should be recorded at the same time at least once every day. It is ideal to record weather data about every hour – and more frequently during snowstorms.
2. Record the time and date on the Weather Watch Field Data Sheet.
3. Read the wind speed to the nearest 0.1 miles per hour (mph).
4. Read wind direction to nearest compass point (for example, NW means Northwest)
5. Record these readings as 'current wind speed and direction' on the Weather Watch Field Data Sheet (for example 8.2 mph NW).
6. If your school is a registered Winter's Story Weather Station, return to the classroom and submit Weather Watch data to your site.